

### **REMARKS**

The Applicants appreciate the Examiner's thorough examination of the subject application. Applicants request reconsideration of the subject application based on the following remarks.

Claims 1, 3-34 are currently pending in the application. Claims 1, 5-7, 11, 12, 18-21, and 26 have been amended. Claims 13 and 27 have been cancelled without prejudice or disclaimer. No new matter has been added by the amendments to the specification or the claims.

Applicants appreciate the indication that claims 3 and 4 are in a condition for allowance and that claims 9 and 10 would be in a condition for allowance if rewritten as independent claims incorporating the language of the base claims.

Claim 26 was objected to as being in improper multiple dependent form.

Claim 26 has been amended to depend from any one of claims 1-7 or 10 such that claim 26 no longer depends from another multiply dependent claim. Thus, claim 26 is fully compliant with 37 CFR 1.75(c).

Claims 1, 5-8, and 11-34 were rejected under 35 U.S.C. 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject which applicant regards as the invention.

Although Applicant respectfully disagrees with the position taken in the office action, claims 1 and 5-7 have been amended to remove the word "about" from the definition of the variable W in order to expedite prosecution.

Claim 5 was rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The assertion in the Office Action that nitrogen is only a trivalent atom is not correct. As is well known in the art, the valence shell of nitrogen comprises the 2s and three 2p orbitals which are hybridized to form four  $sp^3$  orbitals or three  $sp^2$  and one orthogonal  $p_z$  orbital. Thus, ammonia ( $NH_3$ ) has four  $sp^3$  hybridized nitrogen orbitals, three of which form bonds with hydrogen atoms and the fourth is filled with the nitrogen lone pair. Similarly, pyridine ( $NC_5H_5$ ) comprises a ring nitrogen atom which contributes two  $sp^2$  orbitals and a  $p_z$  orbital to bonding within the ring. The remaining nitrogen  $sp^2$  orbital is filled with the nitrogen lone pair. As is well known in the art, the lone pair containing orbital on nitrogen can form covalent bonds with hydrogen or hydrocarbon fragments to form an ammonium salt **which comprises four covalent bonds to nitrogen**.

Applicants agree that substitution of nitrogen at the T, U, or V position of the heterocyclic ring will result in a heterocycle having a positive charge at the substituted nitrogen. However, Claim 5 provides compounds of Formula III and **pharmaceutically acceptable salts thereof**. One skilled in the art will understand that pharmaceutically acceptable salts of compounds of Formula III comprise at least one protonated nitrogen or amino residue or at least one substituted nitrogen at one of the T, U, or V positions and a pharmaceutically acceptable anion notwithstanding the absence of an indication of a charge in the structure of Formula III.

Thus, claim 5 is fully compliant with the requirements of 35 U.S.C. §112 including the requirements of §112, second paragraph.

Claims 11-33 were rejected under 35 U.S.C. §112, first paragraph, because the specification allegedly does not provide enablement for treating patients "susceptible to a" disease.

Applicants respectfully disagree. Claims, 11, 12, and 18-21, as amended, provide methods of treatment an immunosuppressed patient who is suffering from or susceptible to a parasitic infection. Moreover, the specification provides that patients who are susceptible to disease include immunosuppressed patients. See, for example page 6, lines 16-25 and page 16, line 26 to page 17, line 4. The present invention further provides that immunosuppressed patients, such as AIDS patients (See, for example, (a) *J. Am. Med. Assoc.* **1988**, 259, 1185-1189; (b) *Ann. Intern. Med.* **1995**, 122, 755-761; (c) *J Infect.* 2001, 42, 8-15, copies of which were provided in connection with the Information Disclosure Statement filed June 26, 2003), and those undergoing immunosuppressive cancer treatment, which includes chemotherapy, radiation therapy, and the like, are particularly susceptible to parasitic infections.

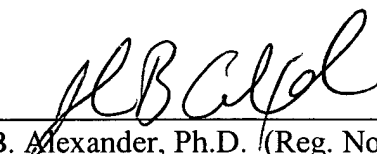
Moreover, the claims have been amended to provide methods of treatment of immunosuppressed patients suffering from or susceptible to a parasitic infection.

Thus, claims 11, 12, 14-26, and 28-33 are fully compliant with 35 U.S.C. §112 including the requirements of §112, first paragraph.

Early consideration and allowance of the application are earnestly solicited.

Respectfully submitted,

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